

Remarks

The Office Action mailed December 31, 2002 and made final, and the Advisory Action dated May 27, 2003 have been carefully reviewed and the foregoing amendment has been made in consequence thereof.

Claims 1-13 are now pending in this application, of which Claims 1-10 have been amended and Claims 11-13 are newly added.

A fee calculation sheet for the newly added claims along with authorization to charge a deposit account in the amount of the calculated fee are submitted herewith. In addition, and in accordance with 37 C.F.R. 1.136(a), a three month extension of time is submitted herewith to extend the due date of the response to the Office Action dated December 31, 2002, for the above-identified patent application from March 31, 2003, through and including June 30, 2003. In accordance with 37 C.F.R. 1.17(a)(3), authorization to charge a deposit account in the amount of \$930.00 to cover this extension of time request also is submitted herewith.

In light of the Request for Continued Examination submitted herewith and the extension of time requested above, the present amendment is timely filed.

The specification has been amended to correct a clerical error and for consistency with previous amendments.

The rejection of Claims 1, 2, 4-7, 9 and 10 under 35 U.S.C. § 102(b) as being anticipated by Wright (U.S. Patent No. 5,741,159 is respectfully traversed.

Wright describes a connector (10) including an insulative housing (12), a conductive connector shell (14) and a contact (16). The shell (14) includes protuberances (78) and (82) extending from a smooth inner surface (80) for establishing a ground with the contact (16).

Amended Claim 1 recites an apparatus for connecting electrical components comprising "a substantially annular keying element having a ribbed outer surface," "a first grounding

element," "a second grounding element configured to receive said first grounding element," "a body element configured for connection to a printed circuit board, said second grounding element extending from said body element," "whereby, said first and second grounding elements provide a grounding connection to a predetermined ground upon connection of said keying element to said predetermined connector and said body element to said printed circuit board."

Wright does not disclose a keying element having a ribbed outer surface or a grounding element extending from a body element as recited in Claim 1. Rather, it is clear from Wright's figures that the insulating housing (12) is flat and smooth and thus does not include a ribbed outer surface. Also, Wright does not disclose that the housing (12) includes a grounding element extending therefrom, but rather a ground is established between the shell (14) and the contact (16) when inserted into the housing (12).

It is respectfully submitted that Wright neither describes nor suggests the apparatus recited in Claim 1, and Claim 1 is therefore submitted to be patentable over Wright.

The detail limitations of Claims 2, and 4-6, considered in combination with the recitations of Claim 1, are likewise submitted to be patentable over Wright.

Amended independent Claim 7 recites an apparatus for connecting electrical components comprising "a keying element comprising a standardized connector adapted for connecting to a predetermined connector via ribs on an outer surface thereof," "a substantially annular first grounding element," "a substantially annular second grounding element configured for connection with said first grounding element," "a body element jack having mounted thereon said second grounding element, said body element jack configured for connection to a printed circuit board," "whereby, said first and second grounding elements provide a grounding connection to a predetermined ground upon connection of said keying element to said predetermined connector and said body element jack to said printed circuit board."

Wright does not describe a keying element comprising a standardized connector adapted for connecting to a predetermined connector via ribs on an outer surface thereof, but rather describes an insulative housing (12) having smooth outer walls. Moreover, Wright does not describe a body element jack having mounted thereon a second grounding element, the body element configured for connection to a printed circuit board.

It is respectfully submitted that Wright neither describes nor suggests the apparatus recited in Claim 7, and Claim 7 is therefore submitted to be patentable over Wright.

Amended Claim 9 recites a method for connecting electrical components comprising: "connecting a first grounding element to a second grounding element, whereby said second grounding element is mounted to a body element jack adapted to connect to a printed circuit board," and "connecting a keying element having a ribbed outer surface to said body element jack; so that any electrical connection created by connecting said keying element to said body element jack is grounded by said connection of said first grounding element to said second grounding element."

Wright does not disclose a keying element having a ribbed outer surface, and does not disclose a body element jack having a grounding element mounted thereto. As Wright does not disclose the recited structure, it is respectfully submitted that Wright does not disclose the recited method of Claim 9. Claim 9 is therefore submitted to be patentable over Wright.

Amended Claim 10 recites an article of manufacture for connecting standardized RE electrical components to a printed circuit board, comprising "a keying element configured for receiving a predetermined electrical connector," "a body element jack configured for mounting to a printed circuit board and comprising an annular second grounding element extending therefrom, said second grounding element comprising a mounting surface," "a first grounding element connected to said second grounding element," and "said keying element fastened to said mounting surface."

Wright does not describe a body element jack configured for mounting to a printed circuit board and comprising an annular second grounding element extending therefrom, said second grounding element comprising a mounting surface, and a keying element fastened to the mounting surface. Neither the contact (16) nor the shell (14) described by Wright includes a mounting surface, and the housing (12) is not fastened to either of the contact (16) or the shell (14).

Claim 10 is submitted to be neither described nor suggested by Wright, and Applicants accordingly submit that Claim 10 is patentable over Wright.

For the reasons set forth above, Applicants respectfully request that the Section 102 rejection of Claims 1, 2, 4-7, 9 and 10 be withdrawn.

The rejection of Claims 3 and 8 under 35 U.S.C. § 103 as being unpatentable over Wright in view of the Applicants' admitted prior art is respectfully traversed.

Applicants acknowledge that FAKRA connectors are known. FAKRA refers to electrical standards and specifications for RF connectors, and Applicants wish to point out that FAKRA is not a trademark and does not refer to a brand of connectors. Rather, FAKRA refers to a type of connector which is compliant with FAKRA standards. It is submitted that those in the art will readily appreciate this aspect of the claimed invention, and that the scope of the claims is clear.

Claim 3 depends from Claim 1, which is submitted to be patentable over Wright for the reasons set forth above. It is respectfully submitted that Wright adds nothing to Applicants admitted prior art with respect to Claim 1, as Wright neither describes nor suggests a standardized connector having a ribbed outer surface, a FAKRA connector, or the grounding elements recited in Claim 1. Rather, Wright discloses a distinct connector structure with no apparent application or adaptability to FAKRA connectors. The motivation to combine the teachings of the prior art must come from the references themselves, and it is improper to use the

Applicants' specification as a template to piece together isolated aspects of the prior art in a hindsight reconstruction of the invention.

It is submitted that Applicants' admitted prior art and Wright fail to teach or suggest each of the limitations recited in Claim 1. Claim 1 is therefore submitted to be patentable over Wright in view of Applicants' admitted prior art, and when the recitations of Claim 3 are considered in combination with the recitations of Claim 1, Applicants submit that Claim 3 is likewise patentable over Wright in view of Applicants' admitted prior art.

Amended Claim 8 recites a method for connecting electrical components comprising "providing substantially first and second annular grounding elements and a FAKRA electrical connector having a ribbed outer surface, the second grounding element provided upon a body element," "inserting the first grounding element over the second grounding element," "inserting an end of the FAKRA connector through the first grounding element," and "coupling the FAKRA connector to the second grounding element, thereby providing an electrical connection and ground for the FAKRA electrical connector."

While Applicants acknowledge that FAKRA connectors are known, Applicants submit that nothing described in Wright is suggestive of the method recited in Claim 8. Wright does not describe a FAKRA connector and does not describe a coupling of grounding elements and a connector as recited in Claim 8.

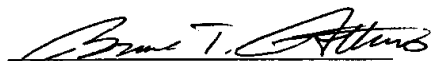
The Applicants' admitted prior art and Wright therefore fail to teach or suggest each of the limitations recited in Claim 8. Accordingly, Claim 8 is submitted to be patentable over Wright in view of Applicants' admitted prior art.

For the reasons set forth above, Applicants respectfully request that the Section 103 rejection of Claims 3 and 8 be withdrawn.

With respect to newly added Claims 11-13, Applicants respectfully submit that the cited art neither describes nor suggests the electrical connectors described therein. Therefore, Applicants submit that Claims 11-13 are patentable over the cited art.

In view of the foregoing amendments and remarks, all the claims now active in this application are believed to be in condition for allowance. Reconsideration and favorable action is respectfully solicited.

Respectfully Submitted,



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APPENDIX

(Version with Markings to Show Changes Made)

IN THE SPECIFICATION

Please replace the third paragraph on the first page with the following paragraph:

Care must be taken when attaching to the connector. For example, the connections must be securely fastened so they do not come apart after installation. Additionally, they must be properly aligned so that an electrical connection is made upon installation.

Please replace the fifth paragraph on the first page with the following paragraph:

However, [snap in] snap-in mechanisms may be confusing for the installer because of their similar appearance. If the confusion among possible connections leads the installer to make the wrong connection, the result could be disastrous.

IN THE CLAIMS

- 1) (once amended) An apparatus for connecting electrical components comprising:
- a substantially annular keying element having a ribbed outer surface [means, for connecting to a predetermined connector];
 - a first [component, comprising a first] grounding element [means];
 - a second [component, comprising a second] grounding element configured to receive said first grounding element [means, for connecting to said first component];
 - a body element [means, having mounted thereon said second component, and having displaced thereon mounting means used for connecting] configured for connection to a printed circuit board, said second grounding element extending from said body element;

whereby, said first and second grounding [element means] elements provide a grounding connection to a predetermined ground upon connection of said keying [means] element to said predetermined connector and said body element [means] to said printed circuit board.

2) (once amended) An apparatus as in claim 1 wherein said keying element [means further] comprises a standardized connector[means].

3) (once amended) An apparatus as in claim 2 wherein said standardized connector [means] further comprises a FAKRA [complaint] compliant connector[means].

4) (once amended) An apparatus as in claim 1 wherein said first grounding element [means] is removeably mounted upon said second grounding element[means].

5) (once amended) An apparatus as in claim 4 wherein said first grounding element [means] comprises an annular grounding element.

6) (once amended) An apparatus as in claim 1 wherein said body element [means] further comprises a printed circuit board jack[means].

7) (once amended) An apparatus for connecting electrical components comprising:

- a keying [means further] element comprising a standardized connector [means, for] adapted for connecting to a predetermined connector via ribs on an outer surface thereof;
- a substantially annular first grounding element[means];
- a substantially annular second grounding element [means, for removeably connecting to] configured for connection with said first grounding element [means];
- a body element jack [means,] having mounted thereon said second grounding element, said body element jack configured for connection [and having displaced thereon mounting means used for connecting] to a printed circuit board;

whereby, said first and second grounding [means] elements provide a grounding connection to a predetermined ground upon connection of said keying [means] element to said predetermined connector and said body element jack [means] to said printed circuit board.

8) (once amended) A method for connecting electrical components comprising:
[grounding a FAKRA electrical connection by]

providing substantially first and second annular grounding elements and a FAKRA electrical connector having a ribbed outer surface, the second grounding element provided upon a body element;

[connecting a] inserting the first grounding element [means to a] over the second grounding element [means];

inserting an end of the FAKRA connector through the first grounding element; and

coupling the FAKRA connector to the second grounding element, thereby providing an electrical connection and ground for [said] the FAKRA electrical [connection] connector.

9) (once amended) A method for connecting electrical components comprising:

- connecting a first grounding element [means] to a second grounding element [means],

whereby said second grounding element [means] is mounted to a body element jack [means, having displaced thereon mounting means used for connecting] adapted to connect to a printed circuit board; and,

- connecting a keying [means] element having a ribbed outer surface to said body element jack [means];

so that any electrical connection created by connecting said keying [means] element to said body element jack [means] is grounded by said connection of said first grounding element [means] to said second grounding element[means].

10) (once amended) An article of manufacture for connecting standardized RE electrical components to a printed circuit board, comprising:

a keying [means for] element configured for receiving a predetermined electrical [connection] connector[,];

[connected to]a body element jack [means] configured for mounting to a printed circuit board[,] and comprising an annular second grounding element extending therefrom, said second grounding element comprising a mounting surface;

[with] a first grounding element [and] connected to [a] said second grounding element [means]; and

said keying element fastened to said mounting surface.